

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Bethelhem Sheward Examiner #: 75633 Date: 03/28/2003
Art Unit: 1774 Phone Number 30 5-0389 Serial Number: 09/923,672
Mail Box and Bldg/Room Location: CPS 11A03 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.
*****28*****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc; if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Fast drying images and methods for printing on inorganic porous media

Inventors (please provide full names): Larrie Deardurff
Bor-Jiunn Niu Gray Bayers

Earliest Priority Filing Date: 08/06/2001

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

① Inkjet ink having the structure of claim 21.

② Inkjet ink having the structure of claim 23.

③ Inkjet ink having the structure of claim 24.

25

27

STAFF USE ONLY

Searcher: <u>ET</u>	Type of Search	Vendors and cost where applicable:
Searcher Phone #:	NA Sequence (#) _____	STN <u>\$ 327.32</u>
Searcher Location:	AA Sequence (#) _____	_____
Date Searcher Picked Up:	Structure (#) <u>(2)</u> <u>(subset)</u>	_____
Date Completed: <u>3-28-03</u>	Bibliographic _____	Dr.Link _____
Searcher Prep & Review Time: <u>5</u>	Litigation _____	Lexis/Nexis _____
Clerical Prep Time: _____	Fulltext _____	Sequence Systems _____
Online Time: <u>40</u>	Patent Family _____	WWW/Internet _____
	Other _____	Other (specify) _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Bethlehem Shewardged Examiner #: 875633 Date: 03/28/2003
Art. Unit: 1774 Phone Number 305-0389 Serial Number: 09/923,672
Mail Box and Bldg/Room Location: CP3 11A03 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Fast drying images and methods for printing on inorganic porous media.

Inventors (please provide full names): Larvic Deardurff,
Bor-Jiann Niu Gray Byers

Earliest Priority Filing Date: 08/06/2001

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I Ink jet ink having the structure of claim 25.

II Inkjet ink having the structure of claim 27.

III Ink jet ink having the structure of claim 29.

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Ed</u>	NA Sequence (#)	STN	<u>\$100.00</u>
Searcher Phone #:	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#) <u>(1)</u>	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	Dr. Link	
Date Completed: <u>3-28-03</u>	Litigation	Lexis/Nexis	
Searcher Prep & Review Time: <u>5</u>	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time: <u>30</u>	Other	Other (specify)	

=> d l35 1-15 cbib abs hitstr hitrn

L35 ANSWER 1 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

2003:133827 Document No. 138:155172 Method for ink-jet printing using ink containing water-soluble anionic dye and cationic receiver. Lawrence, Kristine B.; Wang, Yongcai; Bermel, Alexandra D. (Eastman Kodak Company, USA). U.S. Pat. Appl. Publ. US 2003035931 A1 20030220, 8 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-772097 20010126.

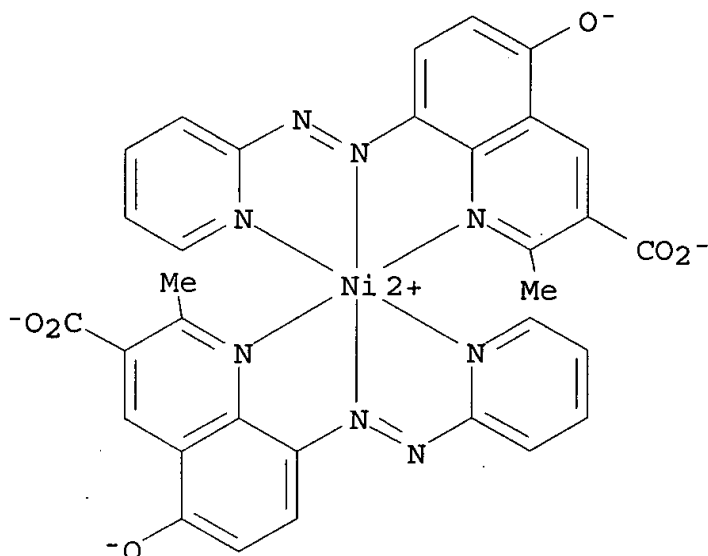
AB The method comprises (A) providing an ink-jet printer that is responsive to digital data signals; (B) loading the printer with ink-receptive elements contg. a support (e.g., paper) having thereon an image-receiving layer comprising a cationic core-shell particle comprising a core (e.g., styrene-divinylbenzene copolymer) and a shell contains .gtoreq.1 ethylenically unsatd. monomer with a trialkylammonium salt [e.g., ethenyl-N,N-dimethyl-N-octadecylbenzenemethanaminium chloride-styrene copolymer]; (C) loading the printer with an ink-jet ink compn. comprising water, a humectant (e.g., diethylene glycol and glycerol), and a water-sol. anionic dye (e.g., Intrajet Yellow DG); and (D) printing on the image-receiving layer using the ink jet ink in response to the digital data signals. The method provides printed images with improved light stability, waterfastness and d.

IT 251959-65-6

(anionic dye; method for ink-jet printing using ink contg. water-sol. anionic dye and cationic receiver)

RN 251959-65-6 ZCAPLUS

CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)



● 2 H⁺

IT 251959-65-6

(anionic dye; method for ink-jet printing using ink contg. water-sol. anionic dye and cationic receiver)

L35 ANSWER 2 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

2003:130618 Document No. 138:195893 Fast drying images and methods for printing on inorganic porous media. Deardurff, Larrie A.; Niu, Bor-Jiunn; Byers, Gary W. (Hewlett-Packard Company, USA). Eur. Pat. Appl. EP 1284200 A2 20030219, 10 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2002-255273 20020729. PRIORITY: US 2001-923672 20010806.

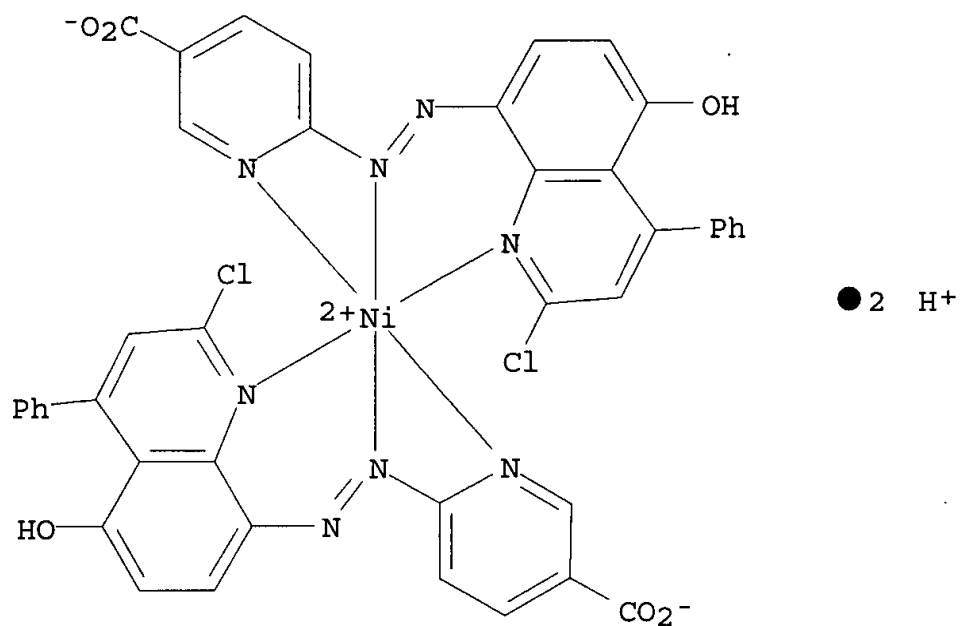
AB The present method is drawn to the creation of fast-drying, photo-quality images on porous media substrates with ink-jet inks. The method comprises the steps of providing a inorg. porous media substrate, providing an aq. ink-jet ink comprising an ink vehicle and an effective amt. of a metalized dye having at least one heterocyclic nitrogen ring and an azo bond wherein the heterocyclic nitrogen is chelated or complexed to a transition metal, and jetting the aq. ink-jet ink onto the inorg. porous media substrate.

IT 497925-41-4 497925-42-5 497925-43-6
497925-44-7 497925-45-8

(photo-quality images created with ink-jet inks comprising metalized azo dyes)

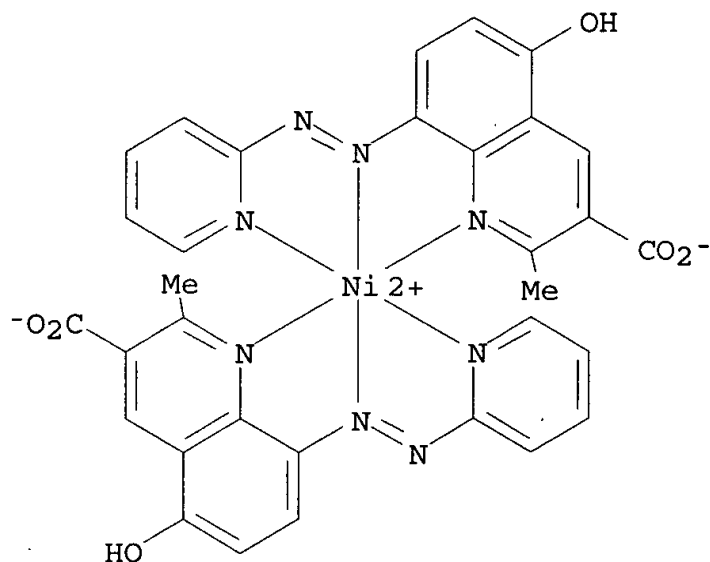
RN 497925-41-4 ZCAPLUS

CN INDEX NAME NOT YET ASSIGNED



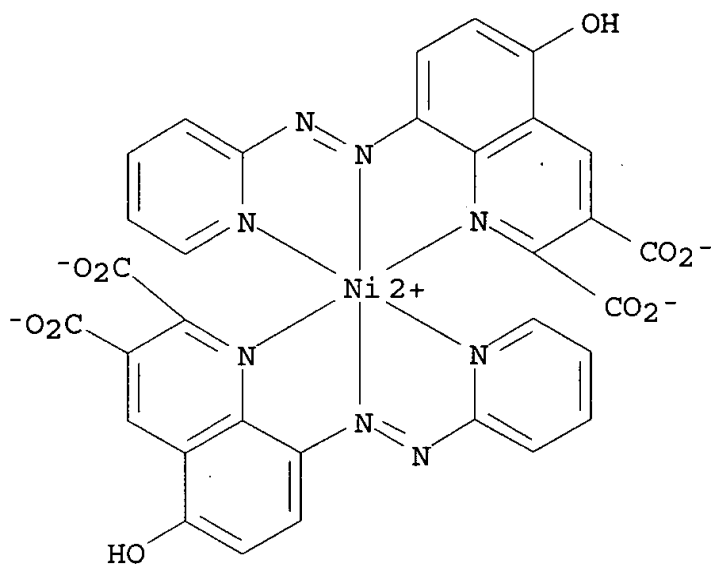
RN 497925-42-5 ZCAPLUS

CN Nickel, bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato-.kappa.N1]-, conjugate diacid (9CI) (CA INDEX NAME)



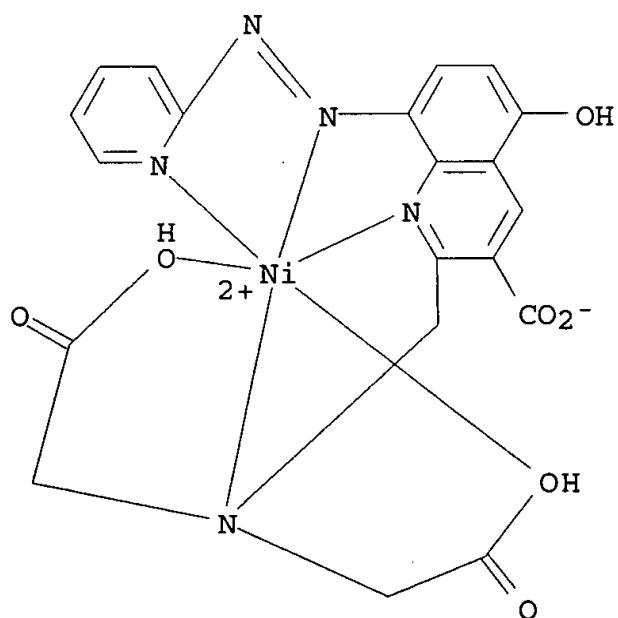
● 2 H⁺

RN 497925-43-6 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-
 2,3-quinolinedicarboxylato(3-)-.kappa.N1]-, conjugate tetraacid
 (9CI) (CA INDEX NAME)



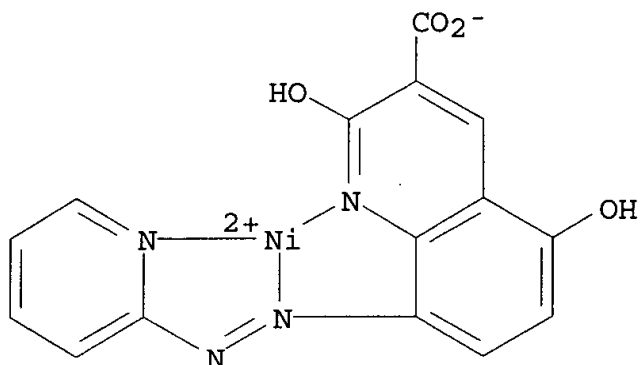
● 4 H⁺

RN 497925-44-7 ZCAPLUS
 CN INDEX NAME NOT YET ASSIGNED



● H⁺

RN 497925-45-8 ZCAPLUS
 CN INDEX NAME NOT YET ASSIGNED



● H⁺

IT 497925-41-4 497925-42-5 497925-43-6
497925-44-7 497925-45-8
(photo-quality images created with ink-jet inks comprising
metalized azo dyes)

L35 ANSWER 3 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
2003:114140 Document No. 138:155168 Ink jet ink composition containing
a hyperbranched polymeric dye and printing method. Wang, Jin-Shan;
Chen, Huijuan; Evans, Steven (Eastman Kodak Company, USA). Eur.
Pat. Appl. EP 1283249 A2 20030212, 9 pp. DESIGNATED STATES: R: AT,
BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI,
LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK. (English). CODEN:
EPXXDW. APPLICATION: EP 2002-77949 20020719. PRIORITY: US
2001-918584 20010731; US 2001-918856 20010731.

AB An ink jet ink compn. having improved waterfastness, lightfastness
and stability of printed image and improved firability through an
ink jet print head, comprises water, a humectant, and a
hyperbranched polymeric dye of a hyperbranched polymer having a dye
chromophore pendant on the polymer chain or incorporated into the
polymer backbone.

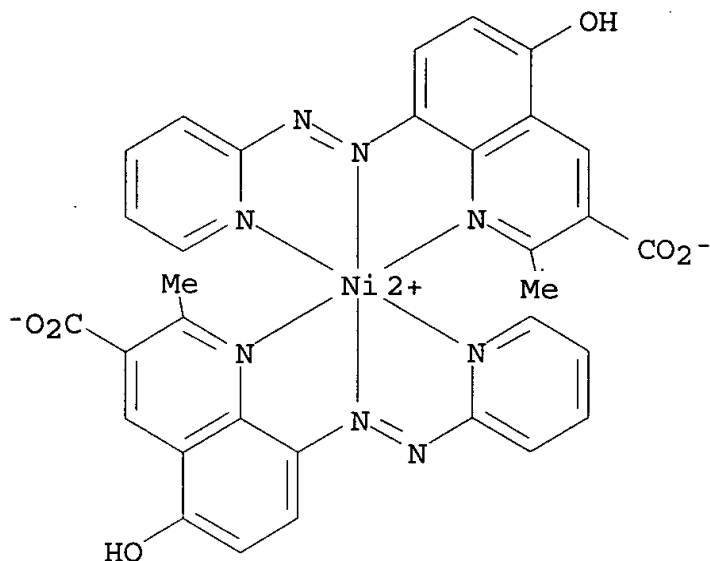
IT 496766-56-4P
(ink jet ink compn. contg. a hyperbranched polymeric dye)

RN 496766-56-4 ZCAPLUS
CN Nickel, bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-
.kappa.N1]-3-quinolinecarboxylato-.kappa.N1]-, polymer with
N,N-bis(2-aminoethyl)-1,2-ethanediamine and hexanedioic acid (9CI)
(CA INDEX NAME)

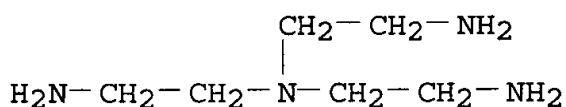
CM 1

CRN 357339-11-8
CMF C32 H22 N8 Ni O6

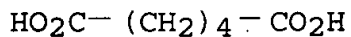
CCI CCS



CM 2

CRN 4097-89-6
CMF C6 H18 N4

CM 3

CRN 124-04-9
CMF C6 H10 O4

IT 496766-56-4P

(ink jet ink compn. contg. a hyperbranched polymeric dye)

L35 ANSWER 4 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
 2002:794096 Document No. 137:312505 Ink jet printing method using
 water-soluble dye and cationic receiver with improved light
 stability, smear, and density. Lawrence, Kristine B.; Teegarden,

David M.; Chen, Tien-teh; Kung, Teh-ming (Eastman Kodak Company, USA). U.S. Pat. Appl. Publ. US 2002149662 A1 20021017, 9 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-771251 20010126.

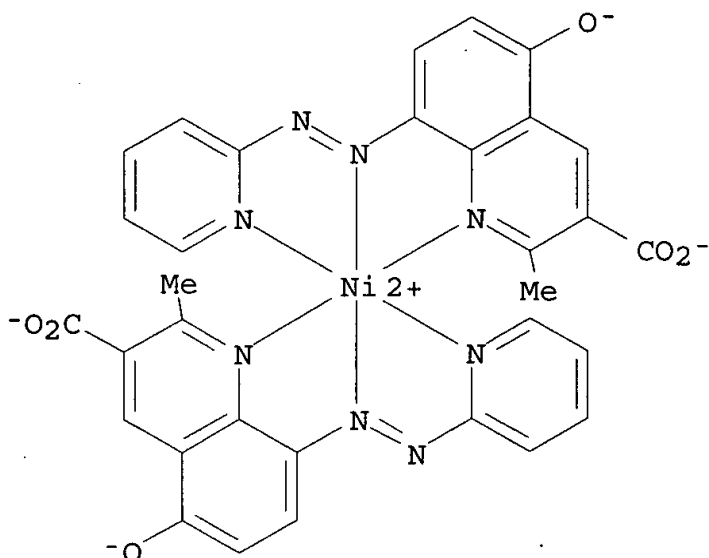
AB An ink jet printing method comprises the steps of (A) providing an ink jet printer that is responsive to digital data signals, (B) loading the printer with ink-receptive elements comprising a support having thereon an image-receiving layer comprising a graft copolymer comprising a backbone copolymer and at least one branch copolymer, the backbone polymer comprising structural units capable of being oxidized by a transition metal catalyst and the branch copolymer comprising cationic units and neutral hydrophilic units, (C) loading the printer with an ink jet ink compn. comprising water, a humectant, and a water-sol. anionic dye, and (D) printing on the image-receiving layer using the ink jet ink in response to the digital data signals. Thus, an ink was prepd. by mixing nickel bis (5-hydroxy-2-methyl-8-(2-pyridylazo)-3-quinolinecarboxylate) 0.58 wt% with deionized water contg. humectants of diethylene glycol and glycerol each at 6 wt%, a biocide (Proxel GXL) 0.003 wt%, and a surfactant (Surfynol 465) 0.05 wt%. Then, a ink recording element was prepd. by coated polyethylene coated photog. paper with an ink receptive layer contg. Mowiol 480 (binder), S 100 polystyrene beads, and acrylamide-(2-methacryloyloxy)ethyltrimethyl ammonium methylsulfate-vinyl alc. graft copolymer.

IT 251959-65-6

(water-sol. dye; ink jet printing method using water-sol. dye and cationic receiver)

RN 251959-65-6 ZCAPLUS

CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)



● 2 H⁺

IT 251959-65-6

(water-sol. dye; ink jet printing method using water-sol. dye and cationic receiver)

L35 ANSWER 5 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

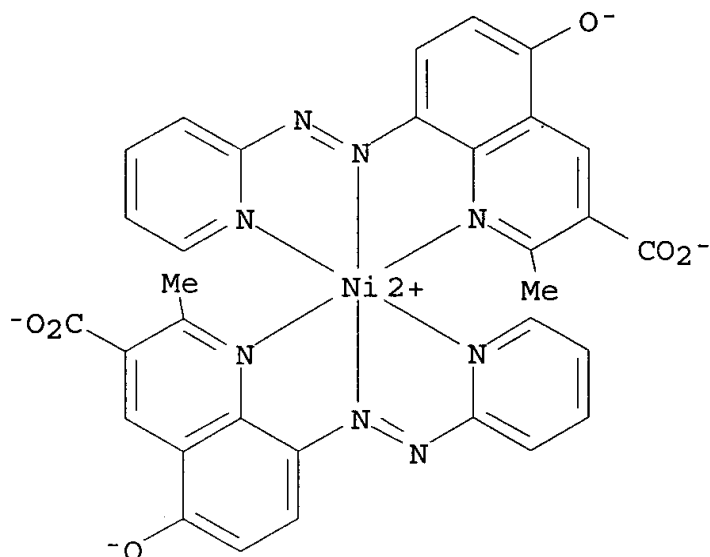
2002:693185 Document No. 137:202818 Ink-jet printing method using metal complex colorant and antikogating agent in ink-jet ink composition. Erdtmann, David; Evans, Steven; Lopez, Edgardo; Van Hanehem, Richard C. (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1239012 A2 20020911, 11 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2002-75601 20020214. PRIORITY: US 2001-794604 20010227.

AB The method comprises (A) providing an ink-jet printer responsive to digital data signals; (B) loading the printer with an ink-jet recording element comprising a support having an image-receiving layer; (C) loading the printer with an ink-jet ink compn. comprising water, a humectant (e.g., diethylene glycol, glycerol and 2-pyrrolidinone), a polyvalent transition metal complex of an 8-heterocyclyazo-5-hydroxy-quinoline and an antikogating agent contg. an alkali metal salt of a monobasic org. or inorg. acid (e.g., sodium hexanoate); and (D) printing on the image-receiving layer using the ink jet ink compn. in response to the digital data signals.

IT 251959-65-6P

(metal complex colorant; ink-jet printing method using metal complex colorant and antikogating agent in ink-jet ink compn.)

RN 251959-65-6 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)



● 2 H⁺

IT 251959-65-6P
 (metal complex colorant; ink-jet printing method using metal complex colorant and antikogating agent in ink-jet ink compn.)

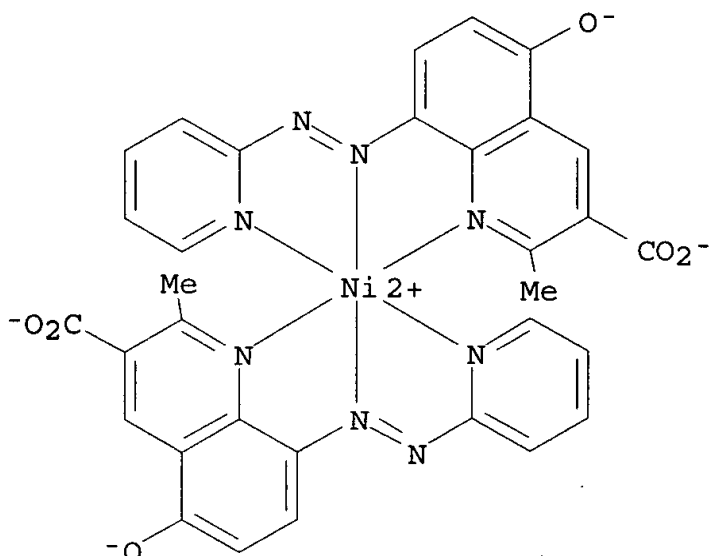
L35 ANSWER 6 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
 2002:656053 Document No. 137:187172 Ink-jet ink composition comprising metal complex of 8-heterocyclylazo-5-hydroxy-quinoline and anti-kogation materials. Erdtmann, David; Lopez, Edgardo; Van Hanehem, Richard C.; Evans, Steven (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1234860 A1 20020828, 14 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2002-75634 20020215. PRIORITY: US 2001-794608 20010227.

AB An ink-jet ink compn. comprises water, a humectant, a polyvalent transition metal complex of an 8-heterocyclylazo-5-hydroxy-quinoline and an anti-kogation material comprising an alkali metal salt of a monobasic org. or inorg. acid. The ink jet ink compn. has both good light stability and bright hue, and is able to provide consistent d. when printed in a thermal ink jet printer.

IT 251959-65-6P
 (metal complexes for ink-jet ink compn. with good light stability

and consistent d.)

RN 251959-65-6 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)



● 2 H⁺

IT 251959-65-6P
 (metal complexes for ink-jet ink compn. with good light stability
 and consistent d.)

L35 ANSWER 7 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
 2002:551542 Document No. 137:110637 Ink-jet printing method using inks
 containing a water-soluble anionic dye and a cationic receiver with
 improved light stability, water fastness, gloss, and printed image
 density. Lawrence, Kristine B.; Chen, Tien-Teh; Wang, Yongcai
 (Eastman Kodak Company, USA). U.S. US 6423398 B1 20020723, 8 pp.
 (English). CODEN: USXXAM. APPLICATION: US 2001-770122 20010126.

AB An ink jet printing method, comprises the steps of: (A) providing an
 ink jet printer that is responsive to digital data signals; (B)
 loading the printer with ink-receptive elements comprising a support
 having thereon an image-receiving layer comprising a binder and
 cationic polymer particles contg. at least one ethylenically unsatd.
 monomer contg. a trialkylammonium salt, each the trialkylammonium
 salt contg. at least one alkyl group greater than 4 carbon atoms in
 length; (C) loading the printer with an ink jet ink compn.
 comprising water, a humectant, and a water-sol. anionic dye; and (D)
 printing on the image-receiving layer using the ink jet ink in

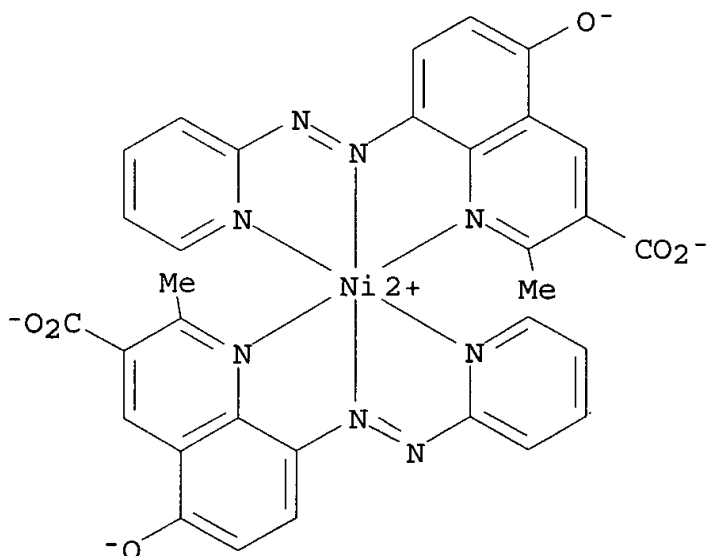
response to the digital data signals. Thus, an ink compn. comprises Intrajet Yellow DG (anionic dye) 3.1%, diethylene glycol and glycerol (humectants) 6%, Proxel GXL (biocide) 0.003 wt%, and Surfynol 465 (surfactant) 0.05 wt%. A recording paper was prepd. by coating polyethylene resin coated photog. grade paper support with a coating contg. polydimethyloctadecyl(vinylbenzyl)ammonium chloride 0.86 g/m², pigskin gelatin 7.75 g/m², and polystyrene beads (S-100) 0.09 g/m².

IT 251959-65-6

(anionic dye; compn. of ink-jet printing inks contg. a water-sol. anionic dye)

RN 251959-65-6 ZCAPLUS

CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
(CA INDEX NAME)



● 2 H⁺

IT 251959-65-6

(anionic dye; compn. of ink-jet printing inks contg. a water-sol. anionic dye)

L35 ANSWER 8 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

2002:505252 Document No. 137:85970 Ink jet printing method. Chen, Huijuan; Evans, Steven; Reczek, James (Eastman Kodak Company, USA).. U.S. Pat. Appl. Publ. US 2002086112 A1 20020704, 9 pp., Cont.-in-part of U. S. Ser. No. 510,879. (English). CODEN: USXXCO. APPLICATION: US 2002-46888 20020115. PRIORITY: US 2000-510879 20000223.

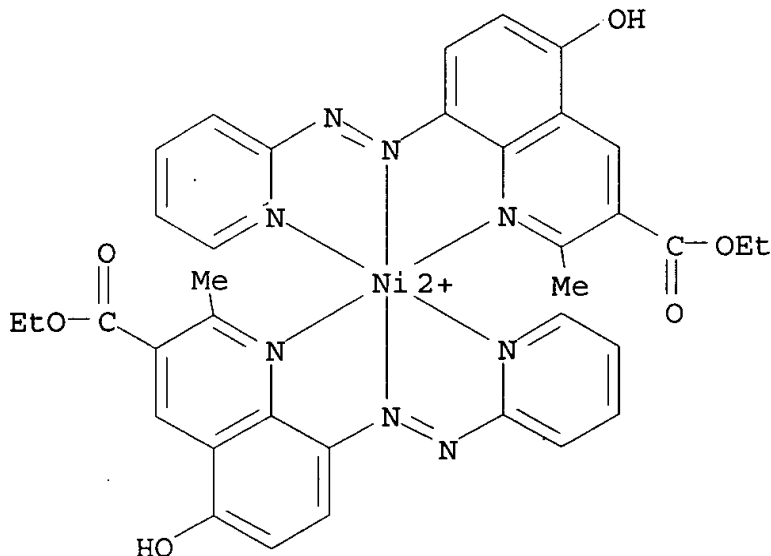
AB An ink jet printing method, has the steps of: A) providing an ink jet printer that is responsive to digital data signals; B) loading the printer with ink-receptive elements having a support having thereon a continuous, coextensive porous ink-receptive layer; C) loading the printer with an ink jet ink compn. comprising an aq.-dispersible polyester having contained therein a water-insol. dye; and D) printing on the ink-receptive element using the ink jet ink in response to the digital data signals.

IT 357339-12-9

(ink jet printing method)

RN 357339-12-9 ZCAPLUS

CN Nickel(2+), bis[ethyl 5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylate-.kappa.N1]- (9CI)
(CA INDEX NAME)



IT 357339-12-9

(ink jet printing method)

L35 ANSWER 9 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

2002:503423 Document No. 137:64694 Ink jet printing method using ink-receptive sheets, and inks containing water-dispersible polymeric binder. Erdtmann, David; Chen, Huijuan D.; Yau, Hwei-Ling (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1219690 A1 20020703, 12 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2001-204769 20011210. PRIORITY: US 2000-742961 20001220.

AB Title process comprises the steps of: (A) providing an ink jet printer that is responsive to digital data signals; (B) loading the printer with ink-receptive elements comprising a support having thereon a porous ink-receptive layer; (C) loading the printer with

an ink jet ink compn. comprising a water-dispersible polymeric latex and a water-sol. dye; and (D) printing on an ink-receptive substrate using the ink jet ink in response to the digital data signals. Thus, ink-jet ink was prepd. by mixing 4.40 g of C.I. Direct Blue 199 (5% active), 7.14 g of AQ 55 dispersion, 0.12 g Surfynol 465, 7.0 g glycerol, 4.0 g diethylene glycol, and 2.40 g diethylene glycol monobutyl ether (Dowanol DB) in 22.08 g distd. water. The ink exhibits improved stability to light and other environmental contaminants such as ozone.

IT 439808-96-5

(pigment; ink jet printing method using ink-receptive sheets, and inks contg. water-dispersible polymeric binder)

RN 439808-96-5 ZCAPLUS

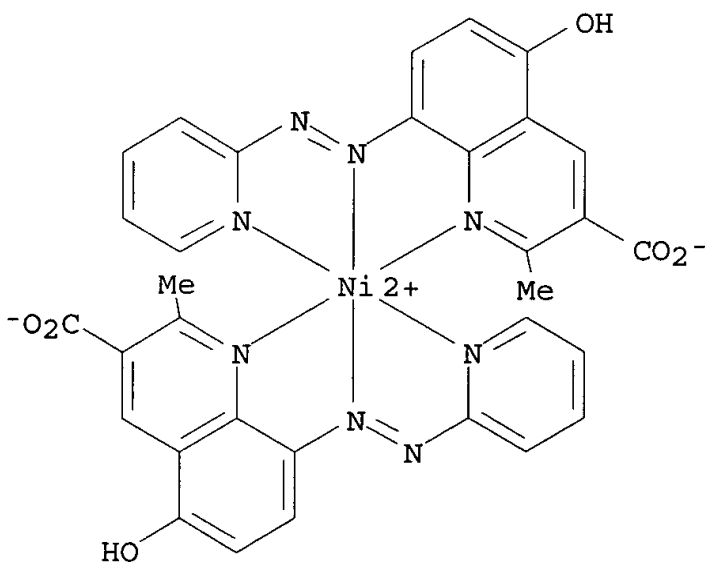
CN Nickel, bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato-.kappa.N1]-, compd. with 2,2',2''-nitrilotris[ethanol] (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 357339-11-8

CMF C32 H22 N8 Ni O6

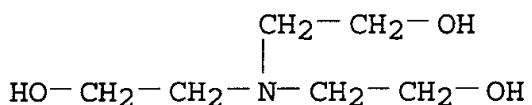
CCI CCS



CM 2

CRN 102-71-6

CMF C6 H15 N O3



IT 439808-96-5

(pigment; ink jet printing method using ink-receptive sheets, and inks contg. water-dispersible polymeric binder)

L35 ANSWER 10 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

2002:364045 Document No. 136:371223 Ink jet ink with water insoluble azo dye and ink jet printing method. Chen, Huijuan Diana; Erdtmann, David; Carroll-Lee, Ann Louise; Evans, Steven (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1205522 A1 20020515, 9 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2001-204151 20011029. PRIORITY: US 2000-709078 20001110.

AB An ink jet printing method, comprises the steps of: A) providing an ink jet printer that is responsive to digital data signals; B) loading the printer with ink-receptive elements comprising a support having thereon a porous ink-receptive layer; C) loading the printer with an ink jet ink compn. comprising a water-dispersible polymeric latex having contained therein a water-insol., salt-type dye; and D) printing on the ink-receptive layer using the ink jet ink in response to the digital data signals.

IT 424839-22-5

(ink jet ink with water insol. azo dye)

RN 424839-22-5 ZCAPLUS

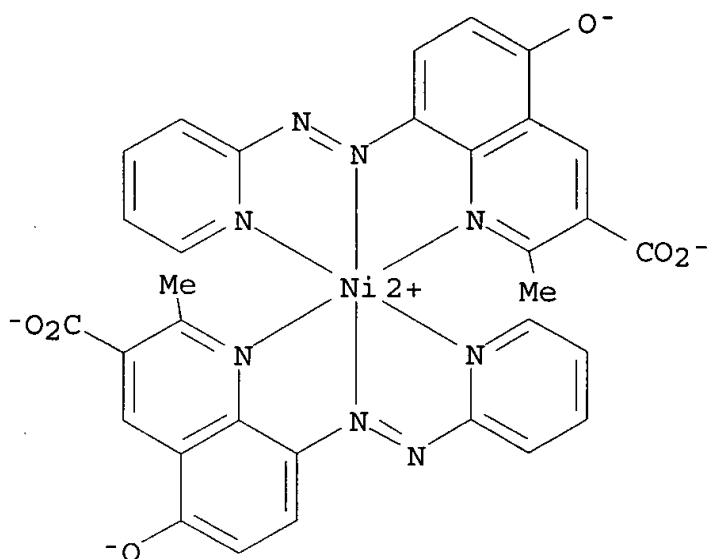
CN 1-Butanaminium, N,N,N-tributyl-, bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]nickelate(2-) (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 424839-21-4

CMF C32 H20 N8 Ni O6

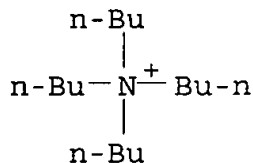
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



IT 424839-22-5
(ink jet ink with water insol. azo dye)

L35 ANSWER 11 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
2001:631892 Document No. 135:218743 Ink-jet printing method. Chen, Huijuan; Evans, Steven; Reczek, James (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1127707 A1 20010829, 9 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-200480 20010212. PRIORITY: US 2000-510879 20000223.

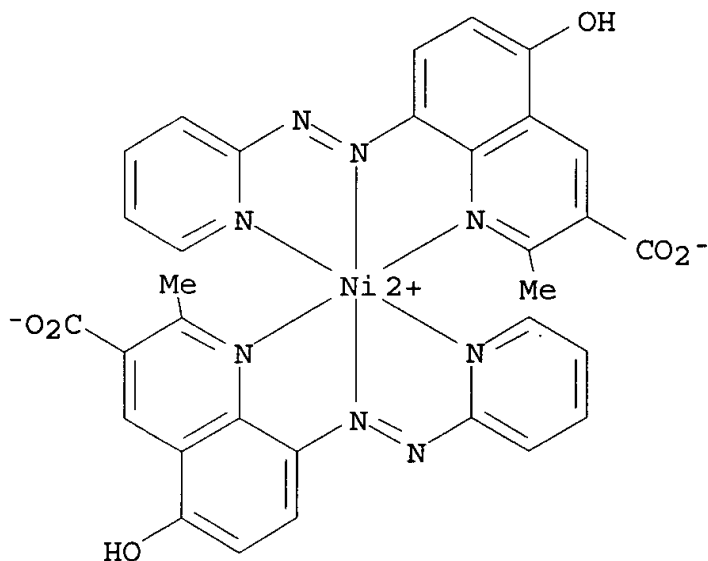
AB An ink jet printing method, comprising the steps of: (a) providing an ink-jet printer that is responsive to digital data signals; (b) loading the printer with ink-receptive elements comprising a support having thereon a porous ink-receptive layer; (c) loading the printer with an ink-jet ink compn. comprising a H₂O-dispersible polymeric latex having contained therein a H₂O-insol. dye; and (d) printing on an ink-receptive substrate using the ink-jet ink in response to the

digital data signals.

IT 357339-11-8P 357339-12-9P

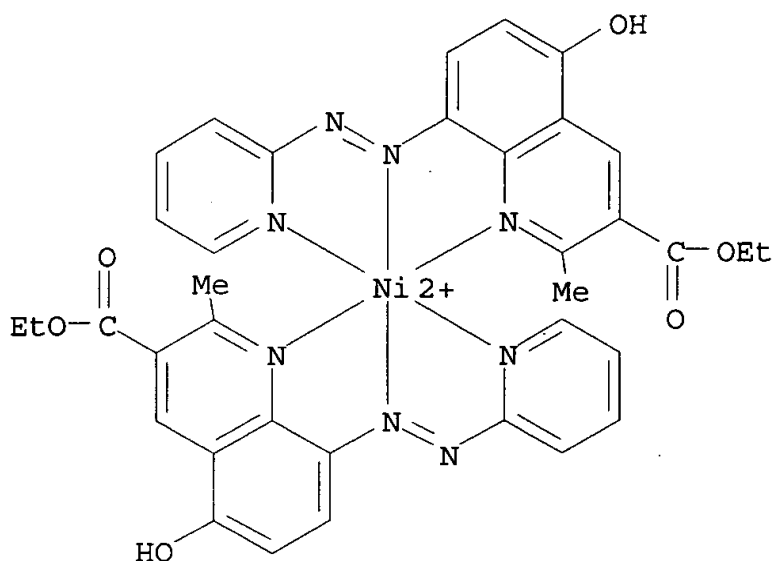
(ink-jet printing compn. contg. water-dispersible latex polymer
with water-insol. dye)

RN 357339-11-8 ZCAPLUS

CN Nickel, bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-
.kappa.N1]-3-quinolinecarboxylato-.kappa.N1]- (9CI) (CA INDEX NAME)

RN 357339-12-9 ZCAPLUS

CN Nickel(2+), bis[ethyl 5-hydroxy-2-methyl-8-[(2-pyridinyl-
.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylate-.kappa.N1]- (9CI)
(CA INDEX NAME)



IT 357339-11-8P 357339-12-9P
 (ink-jet printing compn. contg. water-dispersible latex polymer
 with water-insol. dye)

L35 ANSWER 12 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
 2001:91366 Document No. 134:149097 Ink jet ink set. Erdtmann, David;
 Evans, Steven; Weber, Helmut (Eastman Kodak Company, USA). U.S. US
 6183548 B1 20010206, 7 pp. (English). CODEN: USXXAM. APPLICATION:
 US 1999-387585 19990831.

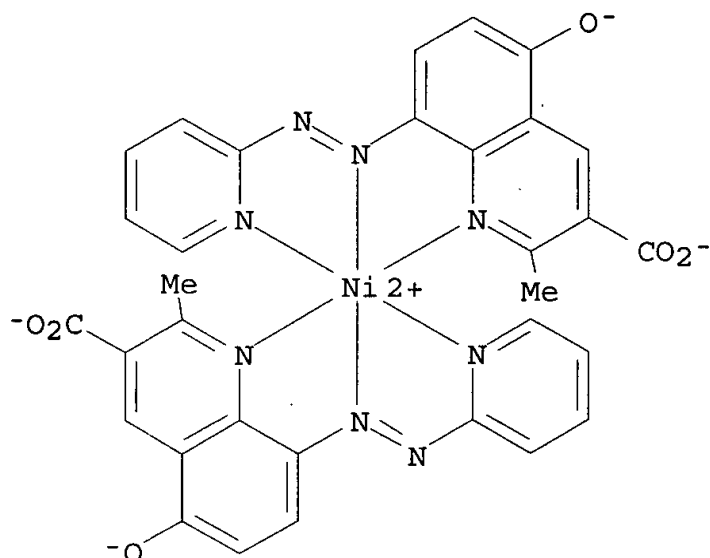
AB A color ink jet ink set for color printing comprises: (a) a yellow
 ink comprising a carrier and Direct Yellow 107, Direct Yellow 132 or
 Direct Yellow 86; (b) a magenta ink comprising a carrier and a water
 sol., transition metal complex of an 8-heterocyclazo-5-
 hydroxyquinoline dye; and (c) a cyan ink comprising a carrier and a
 sulfonated copper phthalocyanine dye.

IT 251959-65-6

(ink jet ink set)

RN 251959-65-6 ZCAPLUS

CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-
 .kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)

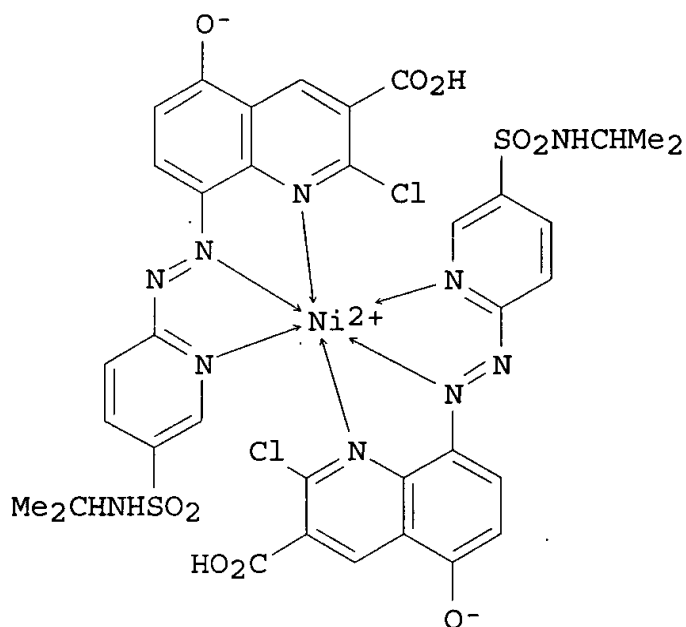


● 2 H⁺

IT 251959-65-6
(ink jet ink set)

L35 ANSWER 13 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
1999:794168 Document No. 132:51265 Metal complex for ink jet ink.
Evans, Steven; Weber, Helmut (Eastman Kodak Co., USA). U.S. US
6001161 A 19991214, 9 pp. (English). CODEN: USXXAM. APPLICATION:
US 1998-203254 19981201.

GI



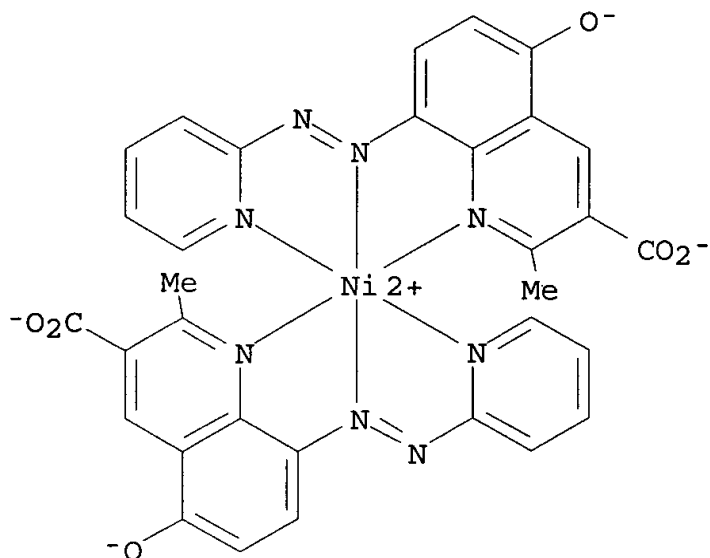
AB An ink jet ink compn. comprises water, a humectant, and a polyvalent transition metal complex of 8-heterocyclazo-5-hydroxyquinoline such as I. This compn. provides magenta images with good light stability and bright magenta hue.

IT **251959-65-6P**

(transition metal complexes of heterocyclazohydroxyquinolines for light-resistant bright magenta ink jet inks)

RN 251959-65-6 ZCAPLUS

CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
(CA INDEX NAME)

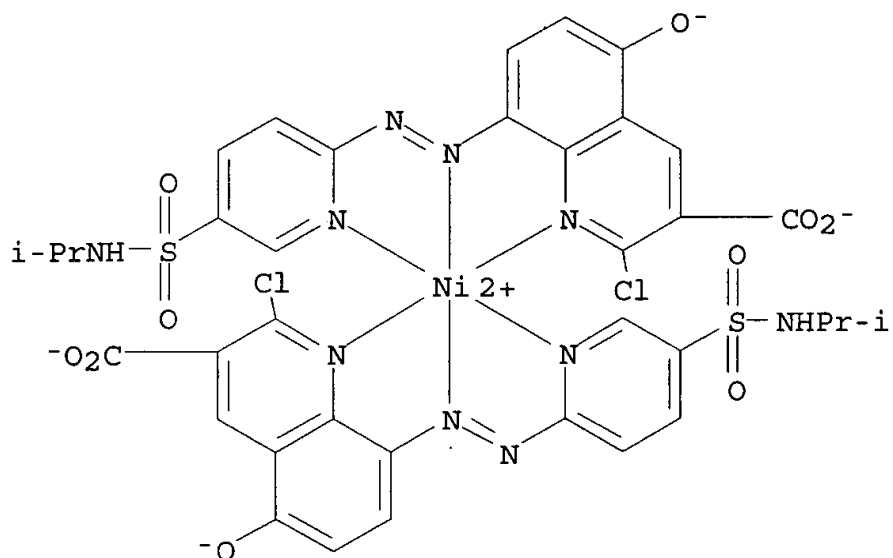


● 2 H⁺

IT 251959-60-1 251959-62-3 251959-63-4
 251959-64-5 251959-66-7
 (transition metal complexes of heterocyclylazohydroxyquinolines
 for light-resistant bright magenta ink jet inks)

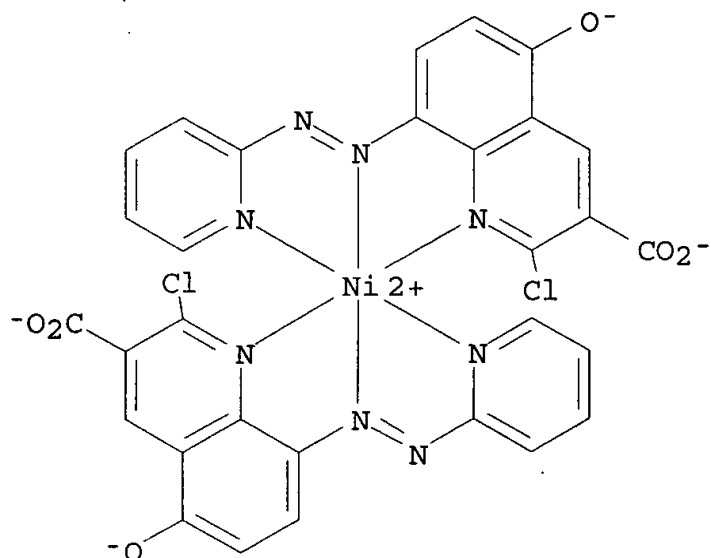
RN 251959-60-1 ZCAPLUS

CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[[5-[[1-(1-methylethyl)amino]sulfonyl]-2-pyridinyl-.kappa.N]azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)



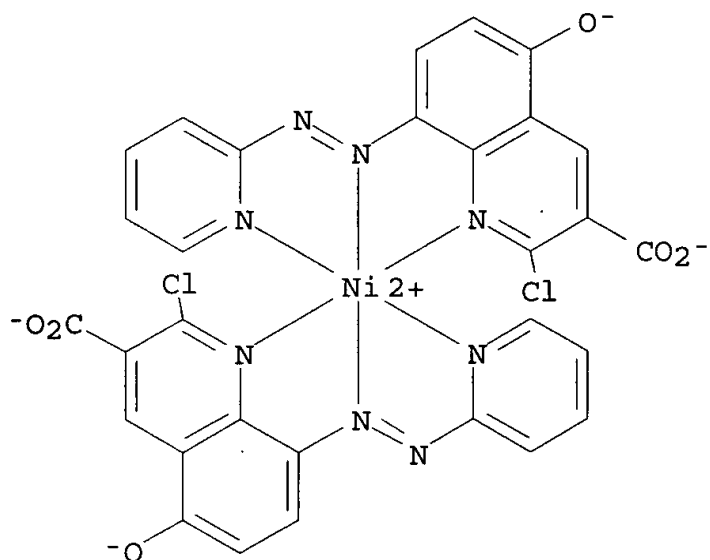
● 2 H⁺

RN 251959-62-3 ZCAPLUS
 CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, disodium (9CI)
 (CA INDEX NAME)



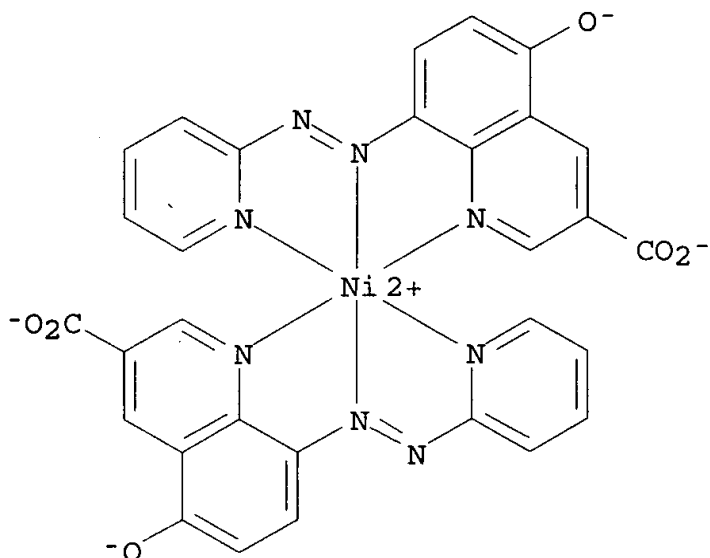
● 2 Na⁺

RN 251959-63-4 ZCAPLUS
 CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)

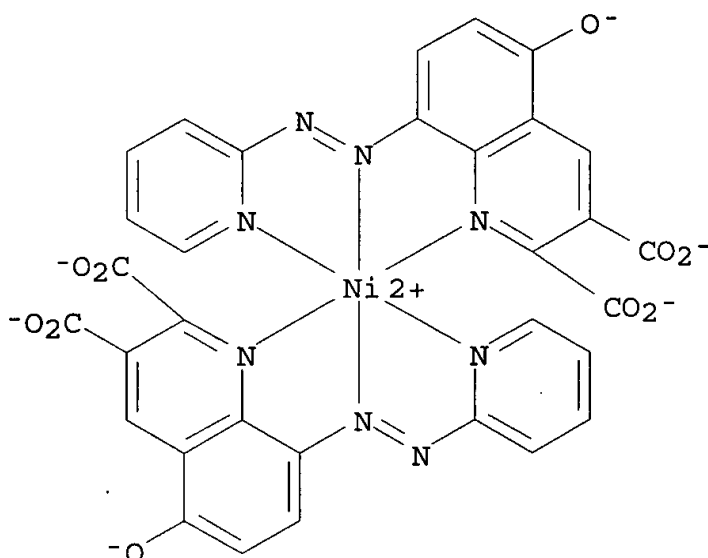


● 2 H⁺

RN 251959-64-5 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)



RN 251959-66-7 ZCAPLUS
 CN Nickelate(4-), bis[5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-2,3-quinolinedicarboxylato(3-)-.kappa.N1]-, tetrahydrogen (9CI) (CA INDEX NAME)



● 4 H⁺

IT 251959-65-6P
(transition metal complexes of heterocyclylazohydroxyquinolines
for light-resistant bright magenta ink jet inks)

IT 251959-60-1 251959-62-3 251959-63-4
251959-64-5 251959-66-7
(transition metal complexes of heterocyclylazohydroxyquinolines
for light-resistant bright magenta ink jet inks)

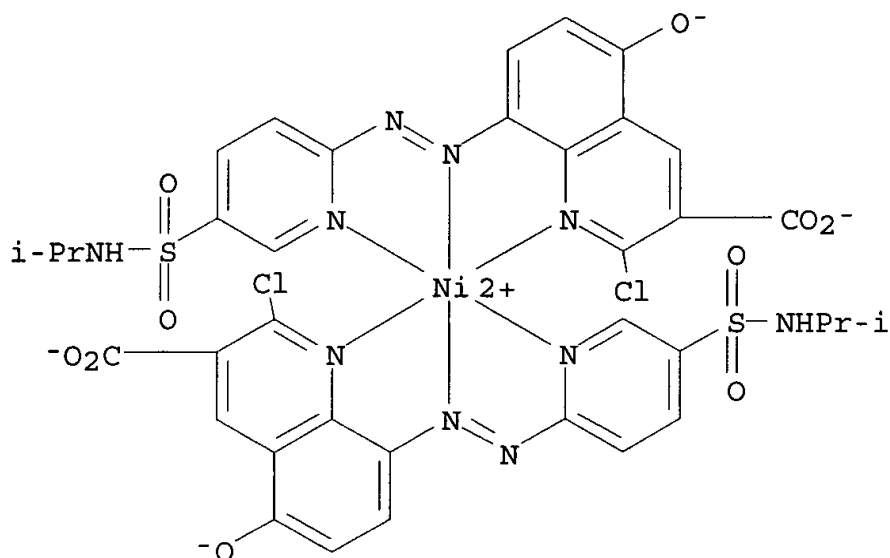
L35 ANSWER 14 OF 15 ZCAPLUS COPYRIGHT 2003 ACS
1999:779071 Document No. 132:23854 Ink jet printing with azo dye metal
complex. Weber, Helmut; Evans, Steven (Eastman Kodak Company, USA).
U.S. US 5997622 A 19991207, 9 pp. (English). CODEN: USXXAM.
APPLICATION: US 1998-203258 19981201.

AB An ink jet printing method comprises the steps of: (A) providing an
ink jet printer that is responsive to digital data signals; (B)
loading the printer with ink-receptive substrates; (C) loading the
printer with an ink jet ink compn. comprising a carrier and a
polyvalent transition metal complex of an 8-(heterocyclylazo)-5-
hydroxyquinoline; and (D) printing on an ink-receptive substrate
using the ink jet ink in response to the digital data signals. The
metal complex azo dyes have light stability comparable to that of
prior-art dyes and superior color purity. An example for the prodn.
of the Ni 1:2 complex of 5-hydroxy-2-methyl-8-(2-pyridylazo)-3-
quinolinecarboxylic acid (.lambda.max 552 nm) was provided.

IT 251959-60-1 251959-62-3 251959-63-4
251959-64-5 251959-66-7
(azo dye metal complexes for ink jet printing)

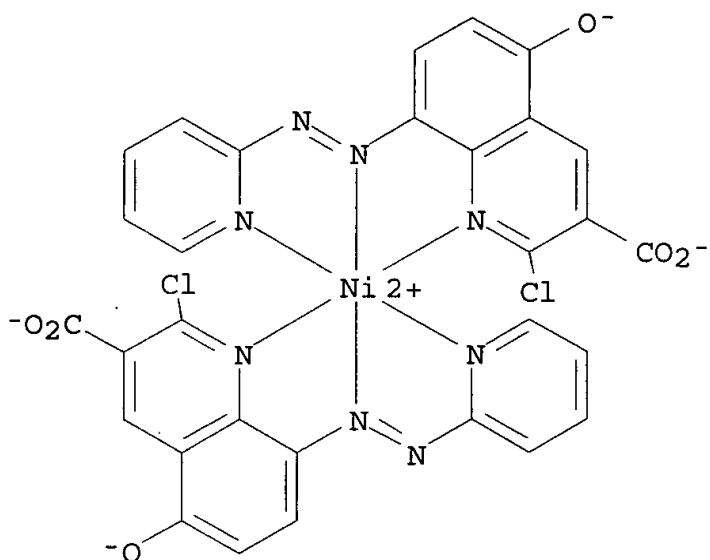
RN 251959-60-1 ZCAPLUS

CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[[5-[[[(1-methylethyl)amino]sulfonyl]-2-pyridinyl-.kappa.N]azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)

● 2 H⁺

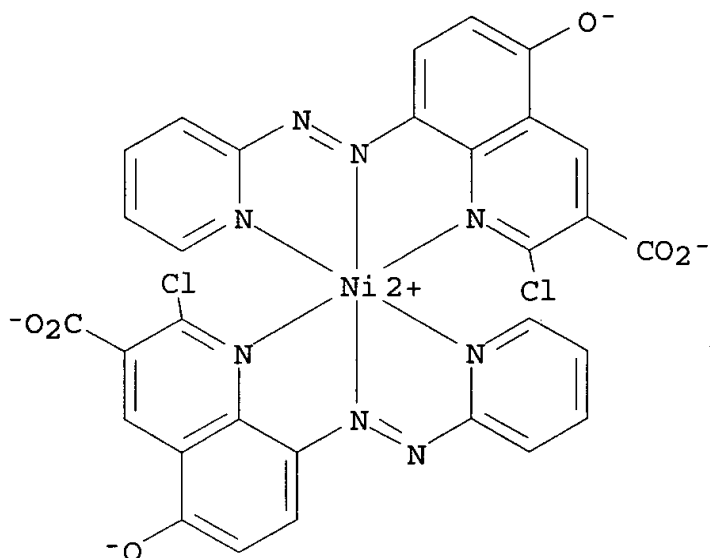
RN 251959-62-3 ZCAPLUS

CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, disodium (9CI) (CA INDEX NAME)



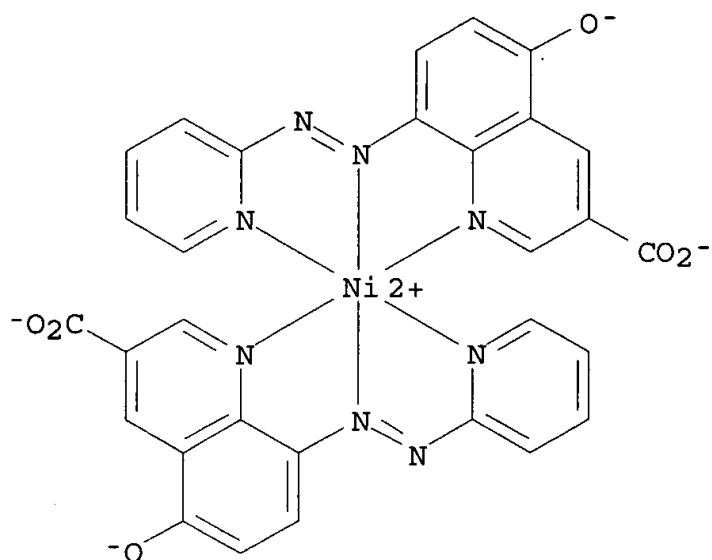
● 2 Na⁺

RN 251959-63-4 ZCAPLUS
 CN Nickelate(2-), bis[2-chloro-5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)



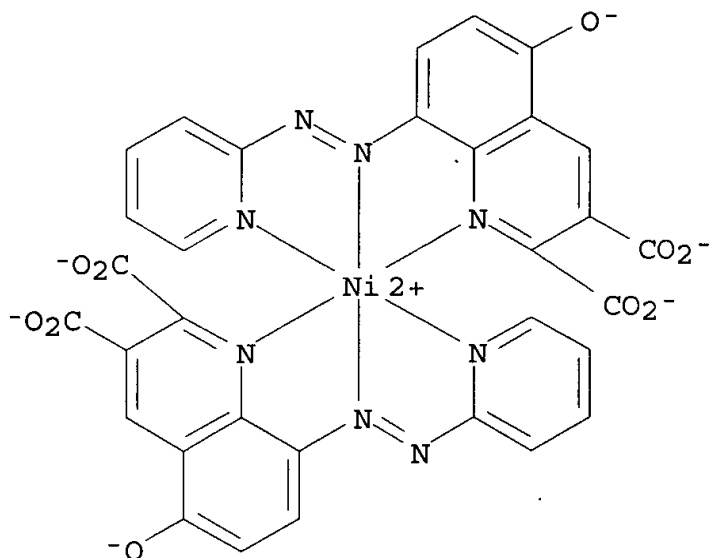
● 2 H⁺

RN 251959-64-5 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI) (CA INDEX NAME)



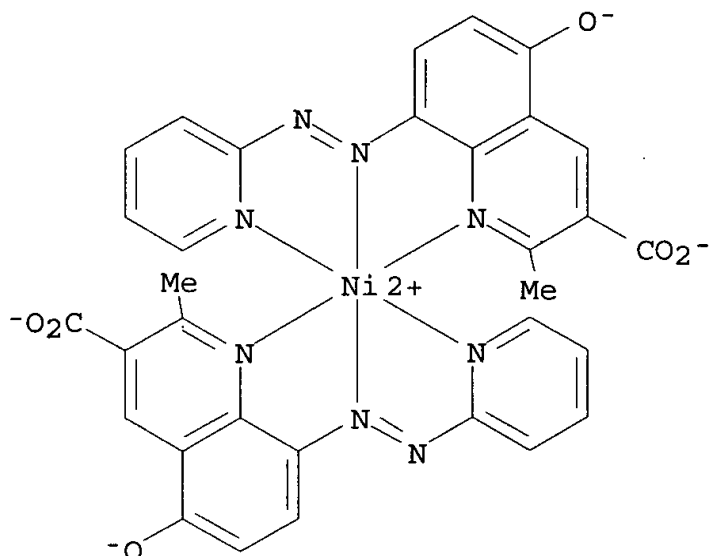
● 2 H⁺

RN 251959-66-7 ZCAPLUS
 CN Nickelate(4-), bis[5-hydroxy-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-2,3-quinolinedicarboxylato(3-)-.kappa.N1]-, tetrahydrogen (9CI) (CA INDEX NAME)



● 4 H⁺

IT 251959-65-6P
 (prodn. of azo dye metal complex for ink jet printing)
 RN 251959-65-6 ZCAPLUS
 CN Nickelate(2-), bis[5-hydroxy-2-methyl-8-[(2-pyridinyl-.kappa.N)azo-.kappa.N1]-3-quinolinecarboxylato(2-)-.kappa.N1]-, dihydrogen (9CI)
 (CA INDEX NAME)



● 2 H⁺

IT 251959-60-1 251959-62-3 251959-63-4
251959-64-5 251959-66-7

(azo dye metal complexes for ink jet printing)

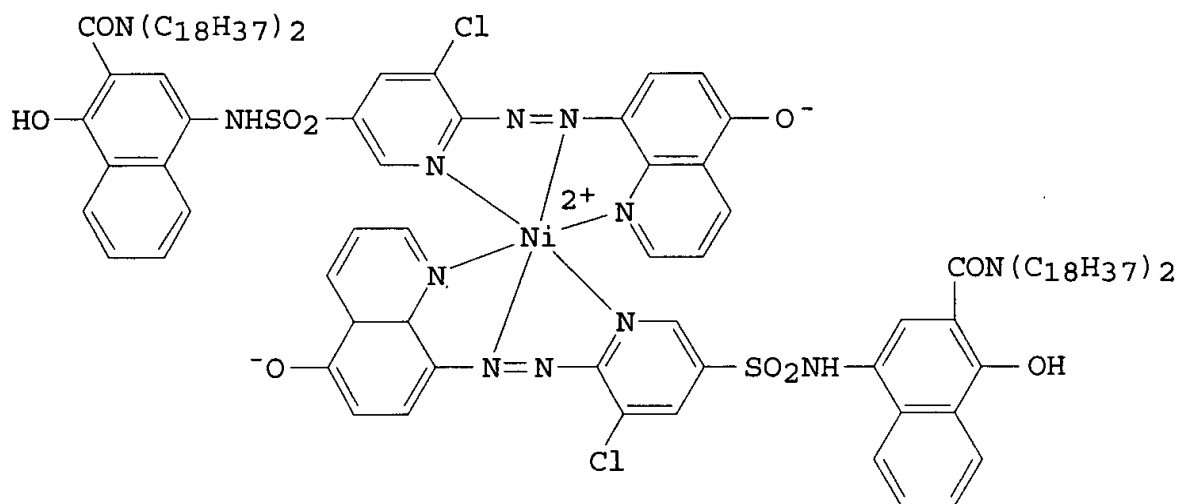
IT 251959-65-6P

(prodn. of azo dye metal complex for ink jet printing)

L35 ANSWER 15 OF 15 ZCAPLUS COPYRIGHT 2003 ACS

1984:94464 Document No. 100:94464 Photographic recording material employing a nondiffusible magenta dye-releasing compound or precursor thereof. Evans, Steven; Elwood, James K.; Bailey, Joseph; Clarke, David; Johnston, Linda Grace (Eastman Kodak Co., USA). Eur. Pat. Appl. EP 95324 A2 19831130, 34 pp. DESIGNATED STATES: R: DE, FR, GB, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1983-302850 19830519. PRIORITY: US 1982-380843 19820521.

GI



I

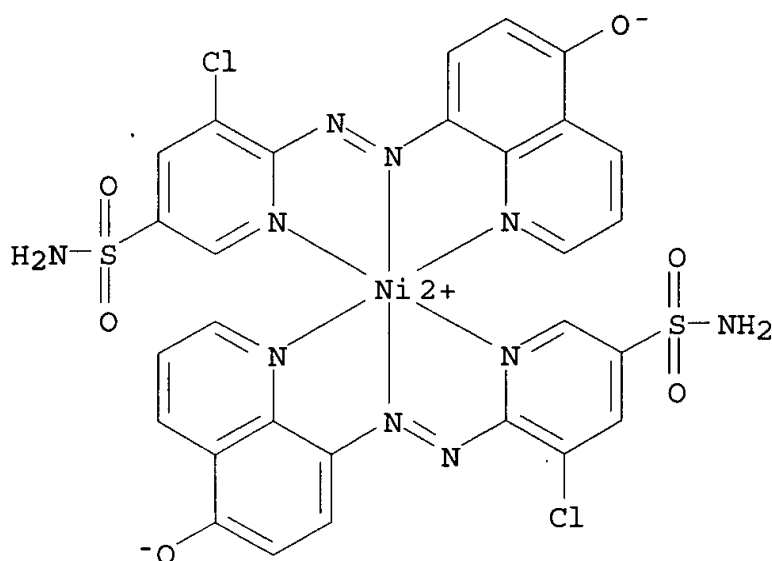
AB A dye image-providing compd. for photog. applications is described which is capable of releasing .gtoreq.1 diffusible magenta dye moiety of the 8-(2-heterocyclylazo)-5-quinolinol type. The dye-releasing compd. can be premetallized or a metal complex of the released dye can be formed in an image-receiving layer. Thus, a poly(ethylene terephthalate) support was coated with a layer contg. I 2.2 .times. 10⁻⁴ mol/m² in 1/2 its wt. of diethylauramide, K 5-s-octadecylhydroquinone-2-sulfonate 0.022, 1-phenyl-2-pyrazolin-3-yl-N-methyl-N-[2-(N-methyltrifluoroacetomidomethyl)-4-(p-sulfonamido)phenyl]carbamate 0.54, gelatin 2.8 g/m², a layer of green-sensitized AgCl emulsion, a layer of gelatin overcoat was given a full exposure to Dmax, soaked 15 s in activator contg. KOH, KBr, 5-methylbenzotriazole, and 11-aminoundecanoic acid, laminated to a receiver consisting of a support coated with Ni sulfate contg. a gelatin layer and a mordant layer, and peeled off after 5 min to give a green d. of 0.75 on the receiver. The d. loss after irradiation of the receiver for 28 days with 6000 W Xe lamp at 50 lx through a UV filter was only 0.14.

IT 88745-97-5

(photog. transfer image from, characteristics of)

RN 88745-97-5 ZCAPLUS

CN Nickel, bis[5-chloro-6-[(5-hydroxy-8-quinolinyl)azo]-3-pyridinesulfonamidato]- (9CI) (CA INDEX NAME)



IT 88745-98-6P

(prepn. of)

RN 88745-98-6 ZCAPLUS

CN Nickel, (acetato-O)diaqua[4-[[[5-chloro-6-[(5-hydroxy-8-quinolinyl)azo]-3-pyridinyl]sulfonyl]amino]-1-hydroxy-N,N-dioctadecyl-2-naphthalenecarboxamidato]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 88745-97-5

(photog. transfer image from, characteristics of)

IT 88745-98-6P

(prepn. of)

=> file reg

FILE 'REGISTRY'

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FILE 'HCAPLUS'

L1 21 S DEARDURFF ?/AU
L2 2236 S BYERS ?/AU
L3 4806 S NIU ?/AU
L4 1 S L1 AND L2 AND L3
SEL L4 1 RN

FILE 'REGISTRY'

L5 6 S E1-E6

FILE 'HCAPLUS'

L6 1 S L5

FILE 'LREGISTRY'

L7 STR
L8 STR

FILE 'REGISTRY'

L9 0 S L7 AND L8
L10 0 S L8
L11 STR L8
L12 0 S L7 AND L11
L13 0 S L11
L14 STR L11
L15 0 S L7 AND L14
L16 15 S L14
SAV L17 SHE672/A
DEL SHE672/A
L17 STR L14
L18 24 S L17
L19 7 S L7 AND L17
L20 530 S L17 FUL
SAV L20 SHE672/A
L21 80 S L20 AND NI/ELS

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L22 47 S L21

FILE 'LREGISTRY'

L23 STR

FILE 'REGISTRY'

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 L25 1 S L23 SSS FUL SUB=L20
 SAV L25 SHE672A/A
 L26 1 S L25 AND L5
 L27 5 S L5 NOT L26

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 L28 STR

FILE 'REGISTRY'
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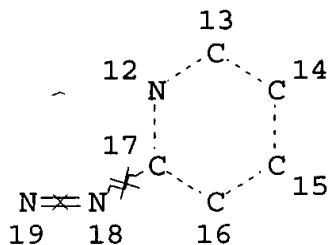
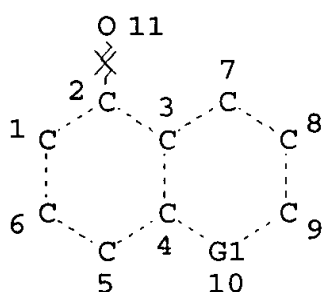
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FILE 'REGISTRY'

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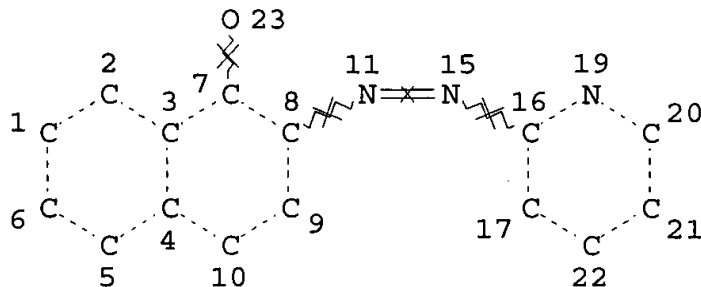
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L23 STR

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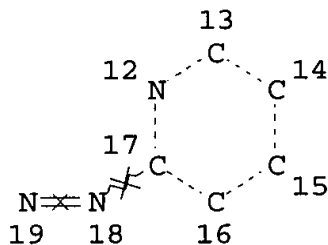
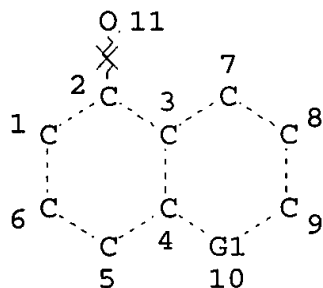
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1 ANSWERS

SEARCH TIME: 00.00.01

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L17 STR



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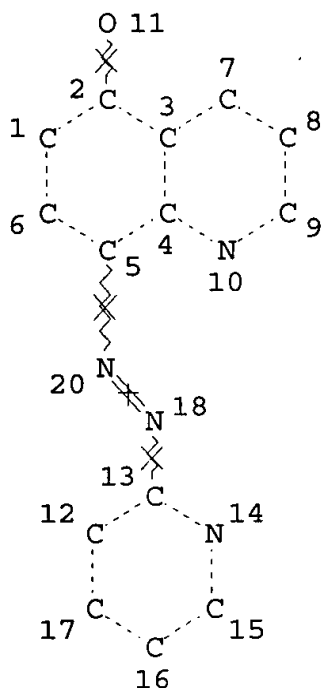
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STEREO ATTRIBUTES: NONE

L20 530 SEA FILE=REGISTRY SSS FUL L17

L28 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L30 33 SEA FILE=REGISTRY SUB=L20 SSS FUL L28

100.0% PROCESSED 35 ITERATIONS

33 ANSWERS

SEARCH TIME: 00.00.01

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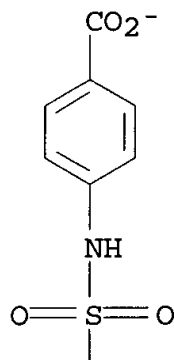
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

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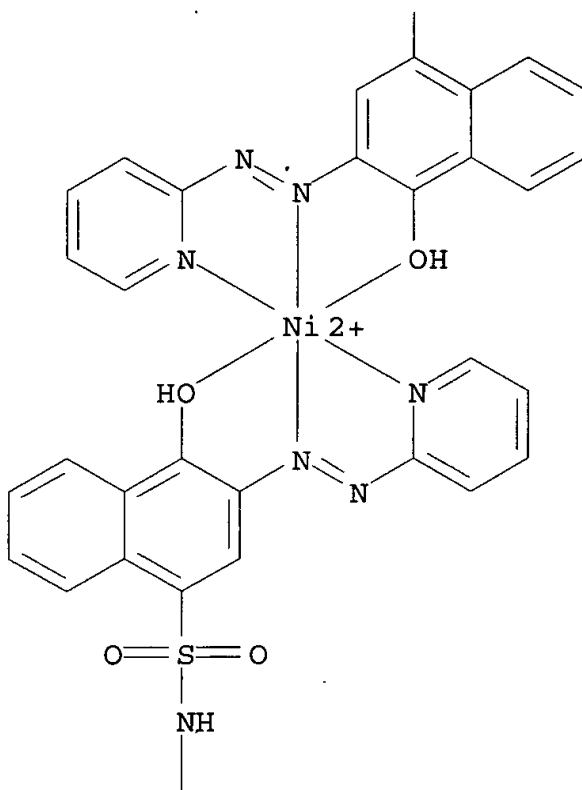
L33 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2003:130618 ZCAPLUS
 DOCUMENT NUMBER: 138:195893
 TITLE: Fast drying images and methods for printing on
 inorganic porous media
 INVENTOR(S): Deardurff, Larrie A.; Niu, Bor-Jiunn; Byers,
 Gary W.
 PATENT ASSIGNEE(S): Hewlett-Packard Company, USA
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1284200	A2	20030219	EP 2002-255273	20020729
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			US 2001-923672	A 20010806
AB	The present method is drawn to the creation of fast-drying, photo-quality images on porous media substrates with ink-jet inks. The method comprises the steps of providing a inorg. porous media. substrate, providing an aq. ink-jet ink comprising an ink vehicle and an effective amt. of a metalized dye having at least one heterocyclic nitrogen ring and an azo bond wherein the heterocyclic nitrogen is chelated or complexed to a transition metal, and jetting the aq. ink-jet ink onto the inorg. porous media substrate.			
IT	497925-46-9 (photo-quality images created with ink-jet inks comprising metalized azo dyes)			
RN	497925-46-9 ZCAPLUS			
CN	INDEX NAME NOT YET ASSIGNED			

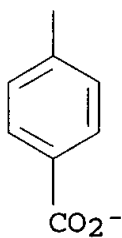
PAGE 1-A



PAGE 2-A



PAGE 3-A



● 2 H⁺

IT 497925-46-9
(photo-quality images created with ink-jet inks comprising
metalized azo dyes)